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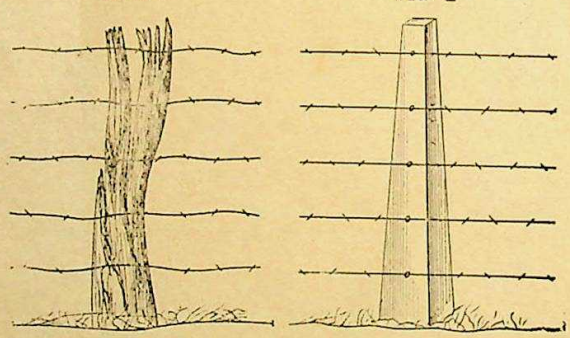
The Age of Concrete

By Charles Cloukey

Illustrations by Courtesy of "Concrete Age"

WHILE considerable attention has been directed toward concrete products of late, especially that branch relating to foundations for engines, machinery, office buildings, and even more recently of concrete piling, there is in progress of development a far wider field for the use of concrete products than is dreamed of by many engineers occupying prominent positions to-day. The conditions named do not reflect in any way upon the general knowledge or efficiency of up-to-date builders, but arise from the fact that in the present stage of the introduction of concrete for various purposes, the localities interested are widely separated, and the country has by no means been more than commenced upon.

FIG. 1 FIG. 2

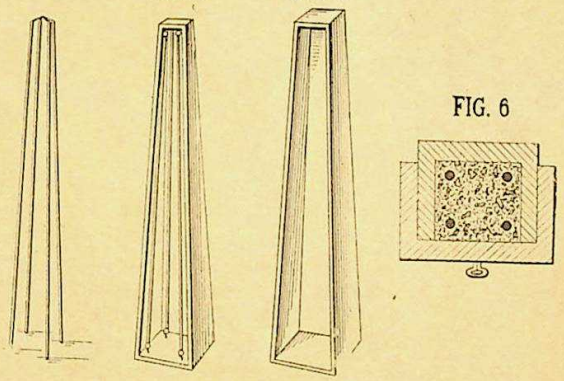


Drawing Illustrating the Superiority of Concrete Fence Posts over Wooden Ones for Durability

As is familiarly known to nearly every one interested in building in any way, concrete is a variable mixture of sand, cement, gravel or crushed rock and enough water to flush the mixture. In some localities the distinction is made of calling the above mixture "concrete" while the absence of the gravel makes it "cement," but the general term is applied as indicated. Probably the greatest and most extensive field now being developed in a comparatively new use of concrete, is that of making artificial stone or building blocks. And this is especially true in the West and Southwest where natural stone is scarce and valuable.

A study of the blocks and the machines for making them, will show something of their possibilities in the way of solid and ornamental architecture at very reasonable figures compared with natural stone. The facility with which they are moulded, the sharpness of detail in the carved patterns, the possibilities in the way of coloring and the substantial durability as a building material, make a combination not to be despised even in more pretentious architecture than modest residences and two-story bank buildings. As foundations for frame buildings they are more sightly in appearance than brick, and taking into account

FIG. 3 FIG. 4 FIG. 5 FIG. 6



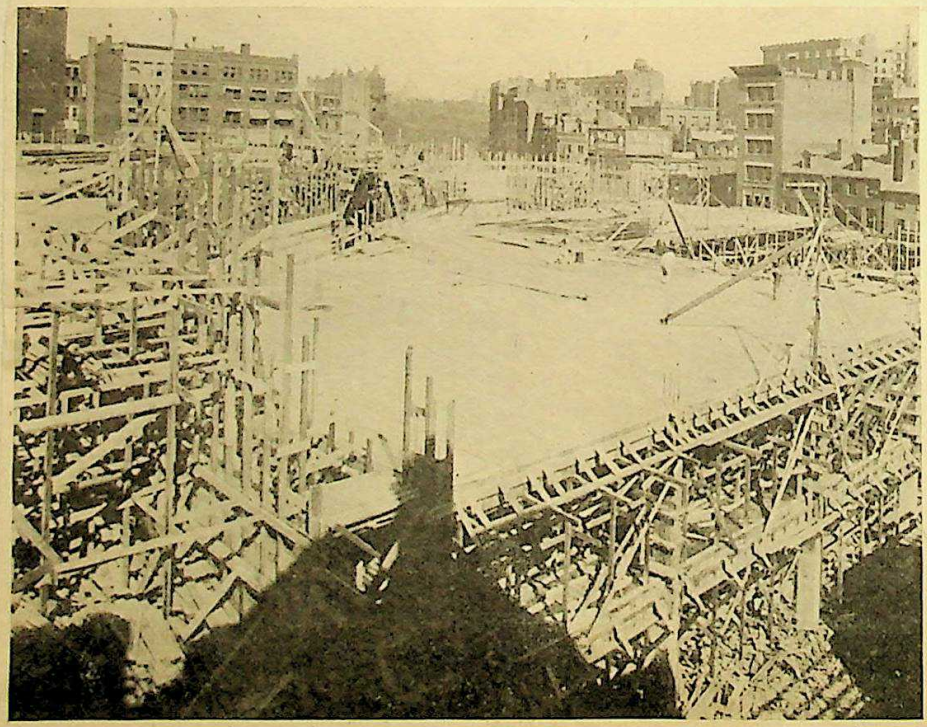
Drawing Showing the Mold for Making Concrete Posts

the laying, are generally cheaper. Of course, the question naturally arises from the inquiring and the doubtful as to the durability of this class of work, and the answer might be pointed to in the case of side-walks, which have stood the test of many years although necessarily placed in the most unfavorable position. However, it is with the artificial stone like it is with the side-walk in so much that a good mixture will stand the test of time and wear, while a poor one will go to pieces the first winter. The value of concrete is directly measured by the quality and amount of cement used in the mixture, and too great economy in this direction will prove very wasteful in the end. In a trade journal recently appeared a very learned article on the subject of growing timber for fence-posts, and it volunteered the information that there is no substitute for a wooden fence-post, while at the same time within five hundred miles of the office there is being rapidly introduced the manufacture of concrete fence-posts which are superior in nearly every particular to the wooden product.

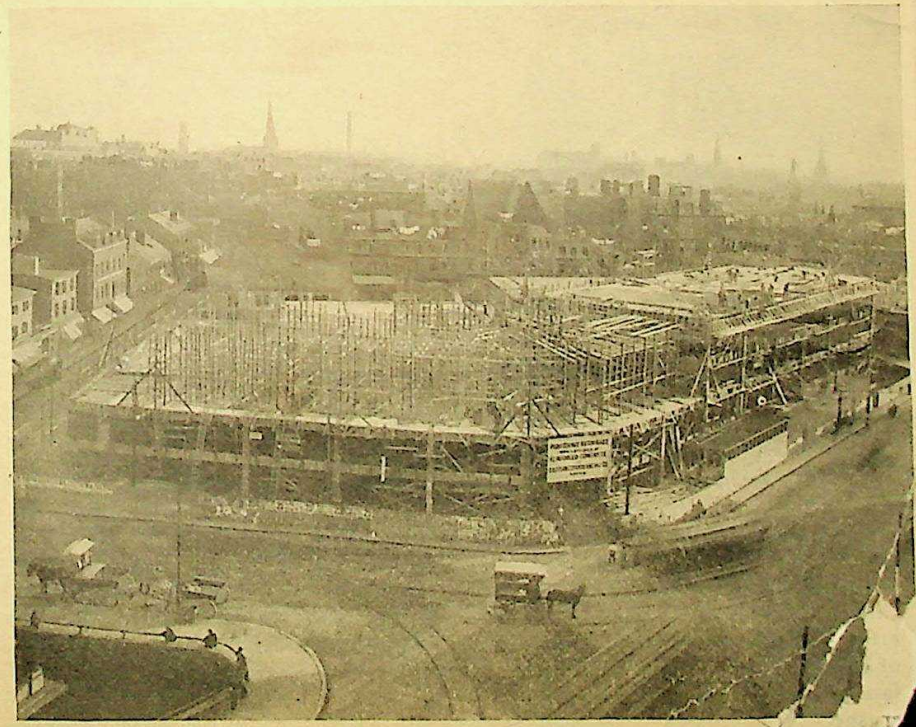
Fig. 4. illustrates the mold in which the common

Showing Spools used in Molding Corrugated Piles with Hollow Cente

Dragging a Pile to the Pile Driver, a Test of its Strength



General View of the Boston Motor Mart, 7,200 Barrels of Cement were Used in its Construction



View of the Boston Motor Mart, Showing the Method of Construction